

July 2 or sooner

Work Order ID 60138

June 25, 2010 12:42:20 PM

Page 1

Item ID: D3197-041

Accept

Revision ID:

Item Name: Bar Assembly

Start Date: 6/25/10

Start Qty: 4.00

Required Date: 6/30/10

Req'd Qty: 4.00

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3197

Rev B

100

0.00



Bandsaw

Jcaspa Bandsaw

BAND SAW

Memo

Cut blanks: 29.125" long

0.00

cmk 10/07/19

4 0

110

0.00



HAAS 1

HAAS CNC vertical machine #1

HAAS CNC VERTICAL MACHINING #1

Memo

1-Face ends to length per dwg D3197112-Machine D3197-1 as per Folio FA340
and Dwg D3197113-Deburr

0.00

LT 10/02/24

PTO →

45 0

120

0.00



QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

LT 10/07/24

45 0

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3197-041 PAR #: _____ Fault Category: Manufacturing NCR: Yes No DQA: _____ Date: 10/08/31
 Resolution: Accepted Disposition: use as is QA: N/C Closed: ✓ Date: 10/09/01

NCR: <u>60138</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>10/07/24</u>	<u>110</u>	<u>Flat of .300" ± .010 was</u> <u>too big goes up too .380"</u> <u>R.C. Program error</u> <u>SE</u>	<u>CP</u> <u>10.08.16</u> <u>Q81042</u>	<u>Replace same Batch</u> <u># 115165</u> <u>Decrease of 0.001 in⁴ in inertia</u> <u>Acceptable</u>	<u>SP</u> <u>10/07/24</u>	<u>S</u> <u>10/08/19</u>	<u>CP</u> <u>10.08.16</u> <u>Q81042</u>	<u>S</u> <u>10/08/19</u>

NOTE: Date & initial all entries

Work Order ID 60138

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Item ID: D3197-041

Accept

Setup Start

Revision ID:

Stop

Item Name: Bar Assembly

Start Date: 6/25/10 Start Qty: 4.00

Cust Item ID:

Required Date: 6/30/10 Req'd Qty: 4.00

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130



Lathe Conv

Conventional Lathe

CONVENTIONAL LATHE

Memo

Chamfer as per Dwg D3197

0.00

0.00

8/10/07/24

5 0

140



QC

Quality Control

QC8- Inspect parts - second check

Memo

0.00

0.00

2/10/08/19

5 0

150



HandFinish

Hand Finishing

Chemical Conversion Coat per QS1005 4.1

Memo

0.00

0.00

10 08 19 (5)

W/O:		WORK ORDER CHANGES					
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Item ID: D3197-041

Accept



Setup Start



Revision ID:

Item Name: Bar Assembly

Stop



Start Date: 6/25/10 Start Qty: 4.00



Cust Item ID:

Required Date: 6/30/10 Req'd Qty: 4.00

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan Accept Reject Reject Insp.
Code Qty Qty Number Stamp

160

Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3

0.00



Powdercoat

Memo

M 12588.

0.00

Powder Coating

START TIME: 11:30

OVEN TEMPERATURE:

320 FINISH TIME:

12:00

(5) 10-8-23

170

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

=> M 10/08/23 5 d

180

Small Fab

0.00



Small Fab

Memo

0.00

Small Fab

Assemble D3197-041 as per Dwg D3197

10/08/30 (5)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 60138

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Item ID: D3197-041

Accept

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Start Date: 6/25/10 Start Qty: 4.00

Required Date: 6/30/10 Req'd Qty: 4.00

Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

QC5- Inspect part completeness to step on W/O

0.00

8/10/30



QC

Memo

0.00

Quality Control

(x5)

200

Identify as per dwg & Stock Location: 57260

0.00



Packaging

Memo

0.00

Packaging

10/8/31 (5)

210

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/08/31

mf
10-8-31

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Picklist Print

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Page 1

Work Order ID: 60138

Parent Item: D3197-041

Parent Item Name: Bar Assembly



Start Date: 6/25/10

Required Date: 6/30/10

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev: A New Issue 05-11-08 JLM
IPP Rev: B As per Rev B 06-03-10 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN960JD10	NAS1149D0363J	Purchased	No			180	Each	0.0000	6	24			
-----------	---------------	-----------	----	--	--	-----	------	--------	---	----	--	--	--



Washer

D2690-5



Lanyard Assembly

4 M115107 (30x)

		Manufactured	No			180	Each	10.0000	2	8			
--	--	--------------	----	--	--	-----	------	---------	---	---	--	--	--

Location

ST021

Loc Qty

10

Loc Code

37927

2

46958

8

D3242-1



Tag

D3489-3-200



PIP PIN

		Manufactured	No			180	Each	0.0000	2	8			
--	--	--------------	----	--	--	-----	------	--------	---	---	--	--	--

		Manufactured	No			180	Each	9.0000	2	8			
--	--	--------------	----	--	--	-----	------	--------	---	---	--	--	--

Location

FP

Loc Qty

9

Loc Code

46991

9

B60139 (5x)

2x
2x (5x)

B37934 (5x)

B37934 (5x)

9 B61419 (1x)

9 B61419 (1x)

6/30/08/24

6/30/08/24

6/30/08/24

6/30/08/24

6/30/08/24

6/30/08/24

6/30/08/24

6/30/08/24

6/30/08/24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

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Page 2

Work Order ID: 60138

Parent Item: D3197-041

Parent Item Name: Bar Assembly



Start Date: 6/25/10

Required Date: 6/30/10

Start Qty: 4.00

Required Qty: 4.00

M7075T73R1.000

Purchased

No

180

f

13.5000

2.42

10.18947



7075-T73 Rd Bar 1.00

Location

Loc Qty

Loc Code

MAT

13.5

100286

4.5

106027

2.25

106070

4.5

111485

2.25

M115165 10.189"

mf
10/6/19

MS21042L3

Purchased

No

180

Each

2,990.000

2

8



Nut

Location

Loc Qty

Loc Code

ST300

2990

114523

490

114718

500

114784

2000

Eff 5/10/08/24

10

MS27039-1-24

Purchased

No

100

Each

129.0000

2

8



Screw

Location

Loc Qty

Loc Code

ST292

129

100151

129

Eff 5/10/08/24

10

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Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 60150
Description: Bar		Part Number: D3197-1
Inspection Dwg: D3197	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
29.00	+/-0.030	29.00	✓			
25.06	+/-0.030	25.06	✓			
11.44	+/-0.030	11.44	✓			
0.500	+/-0.010	.498	✓			
0.250	+/-0.030	.250	✓			
Ø0.219	+0.005/-0.000	.224	✓			
Ø0.191	+0.005/-0.000	.193	✓			
1.000	+/-0.005	1.000	✓			
2.69	+/-0.030	2.681	✓			
1.000	+/-0.010	1.000	✓			
0.300	+/-0.010	.300	✓			
0.063 x 45°	+/-0.010	1063	✓			
Ø1.000	+/-0.010	1.000	✓			

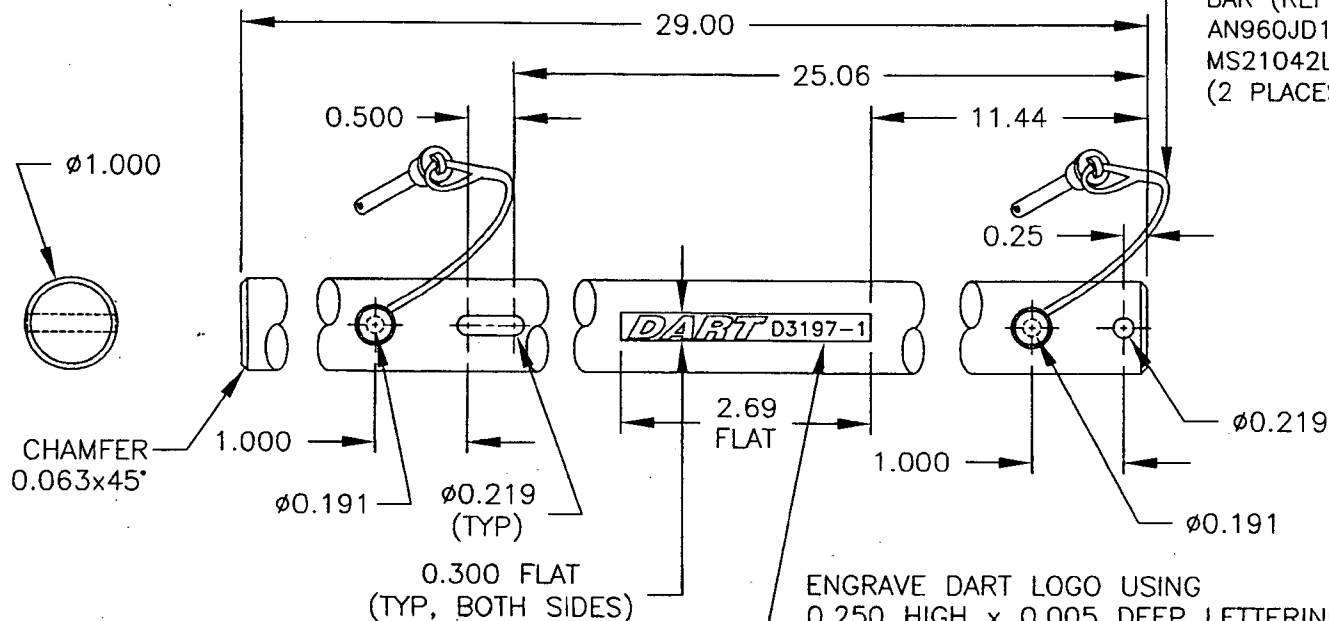
Measured by: SP	Audited by: [Signature]	Prototype Approval:	N/A
Date: 10/27/24	Date: 10/28/19	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.04.20	New Issue (P/O D3197-041)	KJ/JLM	
B	07.03.09	Dwg revision update	KJ/JLM	[Signature]

RELEASED

DART

D3489-3-200 PIP PIN (1)
D3242-1 TAG (1)
MS27039-1-24 BOLT (1)
AN960JD10 WASHER (1)
D2690-5 LANYARD (1)
AN960JD10 WASHER (1)
BAR (REF)
AN960JD10 WASHER (1)
MS21042L3 NUT (1)
(2 PLACES)



D3197-041 BAR ASSEMBLY

ENGRAVE DART LOGO USING
0.250 HIGH x 0.005 DEEP LETTERING
AND P/N USING 0.150 HIGH x 0.005
DEEP LETTERING ON BOTH SIDES

D3197-1 BAR

- 1) MATERIAL: 7075-T73 ROUND BAR (QQ-A-200/11 or QQ-A-225/9) ϕ 1.000 O.D.
(REF DART SPEC. M7075T73R1.000)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT SANDTEX (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) FOR TOOLING, IT IS ACCEPTABLE TO HAVE A 0.06 DEEP x 60° CENTER MARK AT EITHER
END OF THE BAR

DESIGN	CP	DRAWN BY	CP	DART AEROSPACE LTD
CHECKED		APPROVED		HAWKESBURY, ONTARIO, CANADA
DATE	06.01.10	TITLE	BAR	DRAWING NO. D3197
A	03.07.01	NEW ISSUE		REV. B
B	06.01.10	CHG PIP PIN; ADD D3242-1 TAG		SHEET 1 OF 1
				SCALE 1:1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries